



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/677,567	10/01/2003	David M. Eschborn	H0004088	9295
128	7590	09/13/2006	EXAMINER	
HONEYWELL INTERNATIONAL INC.			NGUYEN, CUONG H	
101 COLUMBIA ROAD			ART UNIT	
P O BOX 2245			PAPER NUMBER	
MORRISTOWN, NJ 07962-2245			3661	

DATE MAILED: 09/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/677,567

Applicant(s)

ESCHBORN ET AL.

Examiner

CUONG H. NGUYEN

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) 33-35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application
- ☐ Other: _____.

Status of the claims

1. This Office Action is the answer to the amendment filed on 6/26/2006. Claims 1-32 are currently pending; claims 33-35 are withdrawn.

Drawing

2. This application has been filed with 7 figures of formal drawings, and they are accepted for examinations.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office Action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-10, 23, 28-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gould et al. (Pub. No. US 2004/0106404 A1).

A. Ref. to claims 1, and 23: Gould et al. suggest a method/apparatus for monitoring an aircraft accessory, comprising:

- sensing baseline parametric data during operation of the aircraft accessory during an acceptance test procedure (see Gould et al., FIG.3, refs. 52, and 54);
- storing said sensed baseline parametric data (this must be done by Gould et al., since an aircraft contains a big number of components that have their own unique data that stored in a computer system – see the abstract);

Art Unit: 3661

- sensing real-time operational parametric data (see Gould et al., FIG.3, ref. 56 Gould et al. suggest that feature with “COMPUTER/SERVER QUERIES AIRCRAFT SYSTEMS FOR ACTUAL CONFIGURATION IDENTITY OF AIRCRAFT”);
- comparing the sensed real-time operational parametric data with the stored baseline parametric data (Gould et al. did comparison of actual configuration and authorized/based line configuration data, see Gould et al., FIG.3, refs. 60, and 62); and
- determining a relationship between the sensed real-time operational parametric data and the stored baseline parametric data (that “relationship” is “a difference” in Boolean arithmetic ’s comparison, see Gould et al., FIG.3, ref.62).

Gould et al. do not expressly disclose about using a based line data for comparison.

However, Gould et al. compare “ACTUAL CONFIGURATION IDENTITY” of an aircraft to an “AUTHORIZED CONFIGURATION IDENTITY” (see Gould et al., FIG.3 ref. 60).

Therefore, claimed “COMPARING THE SENSED REAL-TIME OPERATIONAL PARAMETRIC DATA WITH THE STORED BASELINE PARAMETRIC DATA” is suggested by Gould et al.

It would have been obvious to one of ordinary skill in the art at the time of invention to implement Gould et al.’s idea to suggest about COMPARING THE SENSED REAL-TIME OPERATIONAL PARAMETRIC DATA WITH THE STORED BASELINE PARAMETRIC DATA because this clearly defines an objective of comparison tasks that Gould et al. suggested.

Note: Claim 1 is merely directed to comparing sensing data with stored data, the examiner respectfully submits that the claimed meanings is not necessary required “for an aircraft accessory”

The claimed “relationship” could be a Boolean comparison result such as “greater than”, or “smaller than”, or “equal to”; these have been very well known results.

B. Ref. to claims 2-3: The applicants claim a step of storing a bill of materials for the aircraft accessory.

The rationales and reference for a rejection of claim 1 are incorporated.

Gould et al. also suggest about generating, and then storing a bill of material (that act is interpreting as “associating” a relationship//a comparison of data, see Gould et al., FIG.5, ref 80 “ADD UNIQUE PART NUMBER TO UPDATE SOFTWARE PACKAGE” as a result of testing an aircraft).

C. Ref. to claims 4, and 29: The rationales and reference for a rejection of claim 2 are incorporated.

The applicants claim a step of determining logistical requirements for the aircraft accessory based in part on a relationship of sensed data to stored baseline data.

Gould et al. also concern about a disadvantage of the existing system of managing an aircraft's configuration is the logistics problems (i.e., logistical requirements from analyzing data) associated with location, number, and type of software parts (see Gould et al., para. [0006]).

D. Ref. to claims 5, and 8: The applicants claim a step of storing/reporting the sensed real-time operational parametric data.

Gould et al. also suggest about storing/reporting sensed data for comparison with their computer system, see Gould et al., the abstract, FIG.5, ref 80 “ADD UNIQUE PART NUMBER TO UPDATE SOFTWARE PACKAGE” as a result of comparing stored data).

Art Unit: 3661

E. Ref. to claim 6: The applicants claim a step of downloading stored data and stored baseline data to another computer.

The examiner respectfully submits that downloading data to computers is a well-known act of computer users like Gould et al. for analysis/reports.

F. Ref. to claims 7, and 28: The applicants claim a step of determining maintenance requirements for an aircraft accessory based on a relationship between sensed data and stored baseline data.

Since every working part of an aircraft has been very critical; a step of determining a maintenance requirement is a must to guarantee for a safety record. Gould et al. suggest about determining a maintenance for an aircraft onboard health in FIG. 10, ref. 184 every time they use a MAINTENANCE WORKSTATION 184.

G. Ref. to claim 9: The applicants claim a step of reporting data relating to a real-time deviation of sensed real-time parametric data from the stored baseline parametric data exceeding a level/range/number.

The examiner respectfully submits that downloading data to computers is a well-known act of computer users like Gould et al. for analysis/reports – above step merely claiming of reporting a certain difference comparing to stored data.

4. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gould et al. (Pub. No. US 2004/0106404 A1), in view of Kim (US Pat. 4,964,125)

Gould et al. does not disclose a step of isolating a fault based on a relationship of stored operational data to stored baseline data.

However, Kim uses fault isolations to achieve a level acceptable to a user is an aircraft test (see Kim, claim 24).

It would have been obvious to one of ordinary skill in the art at the time of invention to implement Gould et al.'s idea with Kim's teaching of isolation a fault in aircraft testing for an advantage of reducing to a minimum because an aircraft failure must often be corrected quickly to restore service.

5. Claims 11-22, and 24-27, 30-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gould et al. (Pub. No. US 2004/0106404 A1), in view of Coyne (US Pub 20030144969 A1)

A. Ref. to claims 11-12, and 25-27: The rationales and reference for a rejection of claim 1 are incorporated.

Gould et al. determine a Boolean relationship between stored based line data and actual test data (see similar rationales as in rejected claim 1).

Gould et al. does not disclose that a model is a six-sigma parametric model of an aircraft accessory.

However, Coyne develops a model, and uses that model for teaching of a quality control program that requires detailed modeling, monitoring, and measurement of performance, see Coyne, para. [0224].

It would have been obvious to one of ordinary skill in the art at the time of invention to implement Gould et al.'s idea with Coyne's application of six-sigma parametric model for teaching of a quality control program that requires detailed modeling, monitoring, and measurement of performance because using a six sigma model is a strictly test for an aircraft (only 3.4 defects per million are allowed); that level depends on a number of factors and the cost-effectiveness achieving that degree of reduction in defects relative to the cost of the defects.

Art Unit: 3661

B. Ref. to claim 13: The applicants claim a step of downloading a model, and data as in claim 13. The examiner respectfully submits that downloading a model, and data to computers is a well-known act of computer users like Gould et al. for analysis/reports.

C. Ref. to claims 14-15: The applicants claim a step of determining a relationship of real-time data to each model/(a representation of certain data), then displaying those data.

Gould et al. determine a Boolean relationship between stored based line data and actual test data (see similar rationales as in rejected claim 1).

Gould et al. also suggest about providing a real-time remote display of the operating parameters of the aircraft 11 (see Gould et al., para. [0036]).

D. Ref. to claim 16: The applicants claim a step of displaying deviations of sensed data that exceeding a level/number/range.

The examiner respectfully submits that displaying data is a well-known act of computer users like Gould et al. for analysis/reports – above step merely claiming of reporting a certain difference/deviation comparing to stored data.

E. Ref. to claims 17, and 19: The applicants claim a step of determining maintenance requirements for the aircraft accessory based on a relationship of sensed data to each parametric model.

Since every working part of an aircraft has been very critical; a step of determining a maintenance requirement is a must to guarantee for a safety record. Gould et al. suggest about determining a maintenance for an aircraft onboard health in FIG. 10, ref. 184 every time they use a MAINTENANCE WORKSTATION 184.

Art Unit: 3661

F. Ref. to claims 18, and 24: The applicants claim a step/apparatus of associating a relationship between sensed data and a model with an entry in a bill of materials.

The rationales and reference for a rejection of claim 1 are incorporated.

Gould et al. also suggest about generating, and then storing a bill of material (that act is interpreting as “associating” a relationship/a comparison of data/model, see Gould et al., FIG.5, ref 80 “ADD UNIQUE PART NUMBER TO UPDATE SOFTWARE PACKAGE” as a result of testing an aircraft’s data).

G. Ref. to claim 20: The applicants claim a step of determining logistical requirements for an aircraft accessory on a relationship of the stored data.

The rationales and reference for a rejection of claim 11 are incorporated.

Gould et al. also concern about a disadvantage of the existing system of managing an aircraft's configuration is the logistics problems (i.e., logistical requirements) associated with location, number, and type of software parts (see Gould et al., para. [0006]).

H. Ref. to claim 21: The applicants claim a step of linking a bill of material’s entry with stored data/model.

The rationales and reference for a rejection of claim 20 are incorporated.

Gould et al. also suggest about generating, and then storing a bill of material (that act is interpreting as associating/linking a relationship, see Gould et al., FIG.5, ref 80 “ADD UNIQUE PART NUMBER TO UPDATE SOFTWARE PACKAGE” as a result of testing an aircraft).

I. Ref. to claim 22: The rationales and reference for a rejection of claim 20 are incorporated.

The applicants claim a step of determining logistical requirements for an aircraft accessory based on a relationship of related data.

Gould et al. also concern about a disadvantage of the existing systems of managing an aircraft's configuration is the logistics problems (i.e., logistical requirements) associated with location, number, and type of software parts – these are related data (see Gould et al., para. [0006]).

G. Ref. to claims 30-32: The applicants claim an apparatus wherein a data sensor, a memory, and a monitor are integral to an aircraft accessory.

The examiner respectfully submits that above components can be integrated on an built-in Automated Test Equipment (ATE) module for convenient because an aircraft accessory requires many routine tests that can be performed by a pilot, or a mechanic.

Conclusion

6. Claims 1-32 are not patentable.

7. Note: The claimed “relationship” is interpreted as a Boolean comparison result such as “greater than”, or “smaller than”, or “equal to”; these have been very well known comparative relationships.

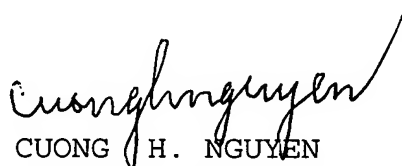
8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CUONG H. NGUYEN whose telephone number is 571-272-6759. The examiner can normally be reached on 9:30 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, THOMAS G. BLACK can be reached on 571-272-6956. The Rightfax number for the organization where this application is assigned is 571-273-6759.

Art Unit: 3661

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Please provide support, with page and line numbers, for any amended or new claim in an effort to help advance prosecution; otherwise any new claim language that is introduced in an amended or new claim may be considered as new matter, especially if the Application is a Jumbo Application.



CUONG H. NGUYEN
Primary Examiner
Art Unit 3661